Message from the Dean

Dear Friends, Colleagues and Supporters,

Summer has arrived in northern Utah with a bang. The winter snows and wet spring worked to alleviate some of our drought concerns. The hillsides are green, reservoirs are filling, and habitats for stream and wildland animals is looking better than in any time in the past decade. We note that these positive local events are coupled with disappointing trends in a globally warmer planet, continued bleaching of coral reefs, water shortages in our southwest and extreme floods in Texas, West Virginia and Europe. Unfortunately the promise of the Paris climate accord has been dampened by recent upticks in carbon emissions and higher temperatures.

The past year has been good for the Quinney College of Natural Resources. We started the year with recent record enrollments. Undergraduate majors exceeded 500 and our graduate programs enrolled over 200 students. Returning LDS missionaries and new recruits made for a busy year. Our student clubs participated in wildlife, fisheries, forestry, and range competitions at state and national meetings. The USU Student Chapter of the Wildlife Society won the Quiz Bowl.

We will celebrate the arrival of new faculty this coming year. Dr. Janice Brahney will join the Department of Watershed Sciences in August. She brings expertise in water quality, examining nutrient transport in dust, salmon, and sediments. Dr. Brahney’s position is newly funded through the USU Climate and Water Initiative. This year we also learned that the estate of Andy Senti, a 1950 alum of the college, designated that the Andrew J. Senti Endowed Chair in Ecosystem Services be established in the Department of Environment and Society. We thank Andy and Randy Bloom, executor of Andy’s estate, for assisting with this gift. We highlight the career of Mr. Senti on page 10 of this report.

We hope you have an enjoyable summer and a productive fall. We look forward to welcoming our new students and learning of the summer adventures of our returning classes. We thank you for your continued support of the activities of the Quinney College of Natural Resources.

Chris Luecke
Financial Report

QCNR Funding 2015 - 2016
Total: $18.7M

The financial status of the Quinney College of Natural Resources is solid. As in previous years, we fund most of our activities through research funding. State funding remains at about 25% of our total budget. This past year funds from charitable contributions rose substantially. The S.J. and Jessie E. Quinney Foundation continues to provide consistent funding for undergraduate scholarships, graduate fellowships, and the Quinney Natural Resources Library. Additional funding from the Janet Quinney Lawson Foundation has assisted us with planning for the BNR remodeling project, for the expansion of our summer internship program, and for undergraduate research projects. Hundreds of donations from individuals provide scholarships for students, student travel to scientific meetings, and student enrollment in field courses and workshops. We thank all of our donors for their generous contributions to programs that assist students in becoming leaders in natural resource professions.

QCNR remains focused on conducting basic research to better understand how ecosystems function. Our faculty work in environments from the intermountain west, to arctic Alaska, Europe, Asia, Africa and South America. The breadth of these programs cover range and forest management, the dynamics of lakes and rivers, plant and animal populations, the conservation of communities and restoration of ecosystems. Most importantly, we focus on sustainability of natural resources and the communities that depend on them.

The diversity of our programs is reflected in the sources of funds for research endeavors. The Federal land management agencies contribute substantially to our programs. Utah agencies help us steward our water and wildlife resources and fulfill the mission of our land-grant University. National and global programs at the National Science Foundation, the National Oceanographic and Atmospheric Administration, and the Environmental Protection Agency contribute basic research funding. This funding diversity contributes to our health and stability, allowing us to be a leading natural resources program in the western US.

QCNR Research Funding
Total: $9.3M
The 2015-2016 academic year proved to be a tremendous success for the QCNR students. The 2016 graduating class was the biggest in recent years, with 102 undergraduates and 31 graduate students completing their degrees. Within the graduating class, 68 students completed degrees in the Department of Wildland Resources, 38 students in the Department of Environment and Society, and 11 students in the Department of Watershed Sciences. Ten students completed the Master of Natural Resources degree.

Sixty students participated in the QCNR commencement celebration. An amazing turnout of support for the graduates occurred with over 400 family members and friends in attendance. Congratulations to all of our graduates, and best wishes for the continuation of their life long journey of discovery. Here are a few of our remarkable graduates to highlight the class of 2016.
Class of 2016 Student Highlights

Patrick Adams – QCNR Senior of the Year
Patrick is currently employed by Newmont Mining Corporation and is examining best methods for including natural capital into the planning process. Patrick was also named senior of the year in the Huntsman School of Business, an outstanding accomplishment.

Levi Simmons – Fisheries and Aquatic Science Major
Levi is working with the Wild Utah Project this summer as an ecology intern. This is one of several collaborative interns that QCNR coordinates with participating agencies. He is working with conservation biologists on several field research projects. Levi is continuing to develop his research experience as he prepares for graduate school.

Brianne Palmer – QCNR Undergraduate Researcher and Jardine Juniper Scholar of the Year
This summer Brianne is working with Dr. Kris Hulvey assessing how various ecosystem services are affected by grazing. Brianne is gaining valuable research experience as she prepares for graduate studies.

Emily Blake – Environmental Studies Major
Emily has been working as a camp instructor this summer for Stokes Nature Center. She works with youth ages 3-15. Emily says “I have been lucky enough to apply my degree in environmental studies to my work at Stokes while enjoying all Logan has to offer in the summer!”
Summer 2016 Internships

These students represent a few of the 24 agency interns employed during the summer of 2016. Participating agencies include the US Forest Service, the Bureau of Land Management, the Utah Division of Wildlife Resources, the Utah Department of Forestry, Fire & State Lands, the City of Logan, and the National Park Service.

Jordan Risley – US Forest Service
Jordan is working with the Forest Service this summer as a member of their recreation crew. He is based out of the Spanish Fork District Office and has been enjoying his time spent in the shadow of the impressive Mt. Nebo.

Paige Morgan and Lauren Holt – Logan City Environmental Division
Paige Morgan and Lauren Holt are working together as interns with the Logan City Environmental Division, working on a new project this summer called “Targeted Education.” They will be measuring recycling contamination in targeted communities within the city and providing education materials for home owners.

Sarah Woodbury – USFS Ogden Botany Intern
As part of a team of USFS botanists, Sarah is helping to gather plants for the Shoshone Ethnobotany project. She is enjoying her summer days hiking into beautiful locations, documenting rare plants and measuring cattle impact on USFS lands.

Nick Madsen – Logan City and DWR Wildlife Extension Internship
This summer Logan City and the DWR Wildlife Extension are working together to monitor wildlife responses to the construction of the new landfill. Nick is working with the team to monitor Sharp-Tailed Grouse, Grasshopper Sparrows, Raptors, Corvids, Gulls and mammalian predators. He is gaining valuable experience with various monitoring techniques.

Molly Van Engelenhoven – Colorado Plateau Dark Sky Cooperative Outreach and Education Assistant
The Colorado Dark Sky Cooperative’s mission is to promote the prevention of light pollution and protect dark night skies. Molly will be working closely with the Cooperative Coordinator in a summer outreach and education position. She will be traveling throughout the four corners promoting astronomy events in several national parks. Molly’s internship is funded by the Joseph Ray Miller Endowment and the Southeast Group of Utah National Parks.
Graduate Report

Dustin Ranglack

Dr. Dustin Ranglack, a recent alumnus of S.J. & Jessie E. Quinney College of Natural Resources (PhD 2014), has started his career with great success. This former Quinney and Presidential Scholar returned to USU for a doctoral project studying bison ecology in the Henry Mountains of southern Utah with Professor Johan du Toit. Dustin quickly overcame the challenges of studying those elusive animals in their remote and rugged habitat, and the data flowed in. He was recognized as the Stokes Leopold Scholar (2013-14) in QCNR and earned honorable mention as a Buell Award finalist among student presenters at the 2014 conference of the Ecological Society of America.

Dustin's research resulted in him being the lead author or co-author of no less than six peer-reviewed journal publications currently in print or in press. To crown it all, Dustin's achievements were internationally recognized when he was awarded the Southwood Prize by the British Ecological Society for the best paper in the Journal of Applied Ecology by an early-career researcher in 2015. That paper, co-authored by Susan Durham and Johan du Toit, will be the subject of a presentation that Dustin has been invited to make in December 2016 at the annual conference of the British Ecological Society in Liverpool, England. This recognition is one of the world’s top honors for early career ecologists. Dustin's work was unanimously selected to be the recipient of this award and deserving so.

Since graduating with his PhD from USU, the trajectory of Dustin's postdoctoral career is indeed auspicious. He is now in transition from a postdoctoral fellowship at Montana State University to a tenure-track faculty position at the University of Nebraska at Kearney. We will follow his professional progress with interest and pride.

Ashley D’Antonio

Ashley D’Antonio is a recent PhD graduate of QCNR's Human Dimensions of Ecosystem Science and Management Program. Working with Professor Chris Monz in the Department of Environment and Society, Ashley’s dissertation research helped managers balance human use of resources within the parks.

Ashley D’Antonio will be leaving us this fall to begin a new faculty position at Oregon State University. Ashley will join the Department of Forest Ecosystems and Society at Oregon State University as an Assistant Professor in Nature-Based Recreation Management. We send her off with our best wishes for a very successful career.
New Faculty Highlights

Jacopo Baggio

Jacopo Baggio has always been fascinated in understanding how people and the environment interact. He is willing to question; Are we really that selfish? Do we always look only at our own best interest? How do we communicate, work together and socialize? How do we deal with complex problems such as managing natural resources? These are the questions that drive Jacopo's research and that convinced him that modelling, field studies and experiments are all complementary and fundamental for understanding human-environmental interactions. Jacopo's interests led him from a Bachelor's Degree in Economics and Social Science at the University of Milano-Bicocca Italy (2005), to a Masters in Development Economics (2007), and a PhD in International Development at the School of International Development, University of East Anglia, England (2011).

He loves to travel and immerse himself in different cultures, he has lived for at least a year in 5 different countries and speaks 4 different languages. At Utah State he will continue to work on those tricky but fascinating questions relating to the complex relationship between people and the environment while also taking the time to explore the snow and the ski resorts that life elevated has to offer here.

Dave Dahlgren

Dave grew up in North Dakota where he developed a passion for upland game birds. Native grouse ecology and conservation have been a focus of his professional life. Dave is a “true-blooded Aggie from Utah” and is fascinated by the complexity of “the spot, where the sagebrush grows.” He received his BS, MS, and PhD degrees from Utah State University (USU). After some experience as a Post Doctoral Fellow he went to work with the Kansas Department of Wildlife, Parks, and Tourism their statewide Upland Game Specialist.

His experience working for a state wildlife agency deeply affected his view of how conservation moves forward and the role of research
and extension in the wildlife field. David returned to Utah in 2013 and accepted an Extension faculty position in the Department of Wildland Resources this year. Dr. Dahlgren has come to an appreciation and understanding of how an Extension program can help meet the needs of local communities, state policies, and national conservation issues. When not following his dogs in the uplands or fly fishing in the riparian, he can be found enjoying time with his wife and 3 young daughters.

Jordan Smith

Jordan Smith joined the ENVS Department in January as the new Director of the Institute of Outdoor Recreation and Tourism (IORT). Utah’s billion-dollar outdoor recreation economy didn’t materialize purely on account of our spectacular scenery, abundant wildlife and incredible snow. On the contrary, this branch of the tourism industry involves considerable amounts of research, planning, investment and marketing. Since its inception in 1998, IORT has been an indispensable source of outdoor recreation research. The Institute creates a variety of data and information products that help Utah’s park and outdoor recreation managers plan for the next season or even for the next decade.

The Institute consists of three faculty members, a full time research associate and a dozen seasonal student workers. These students are dispersed throughout the state to count visitors, conduct surveys, assess trails, and conduct studies on recreational use. Research design and implementation is interdisciplinary; blending methods from the fields of psychology, sociology and geospatial analytics.

Jordan Smith was thrilled to take the helm as director of the Institute. He earned his Ph.D. in Parks, Recreation and Tourism Management at North Carolina State University and is a graduate of USU’s Recreation Resource Management BS and MS degrees. With a joint appointment as a professor in Extension and QCNR’s Department of Environment and Society, Jordan will address contemporary issues using state-of-the-art methods. Jordan’s research takes advantage of virtual reality to explore potential tourist perceptions through individual gaze patterns, blink rate and pupil size. Jordan is seeking to increase research collaborations with private companies to enhance our knowledge in outdoor recreation and tourism.
Fritz Knopf Doctoral Fellowship in Avian Conservation

Dr. Fritz L. Knopf received a B.A. in Biology at Hiram College in 1967 and his Masters in Wildlife Science (1973) and Ph.D. in Wildlife Ecology (1975) at Utah State University. He was an Assistant Professor at Oklahoma State University early in his career and later held positions as research scientist with the U.S. Fish and Wildlife Service and the U.S. Geological Survey. He focused his research on understanding biophysical changes in landscapes and their effect on migratory bird populations. He examined ways to translate that research into conservation management and policy. He was an inspirational collaborator among academics, resource managers, and landowners. He was noted for his mutual trust and respect and is quoted for proclaiming, “I was never the smartest one in the arena-just tried to keep a clear mind and work harder.”

To that end Dr. Knopf donated funds to establish doctoral fellowships in PhD programs at the University of Colorado, Utah State University, Oklahoma State University, and Iowa State University. Dr. Knopf was strongly influenced by his faculty and student peers within the College of Natural Resources at Utah State University. After graduating from USU he realized his peers were now employed across the continent. His creation of fellowships at these four institutions is intended to foster collaboration and advance the science of avian conservation. Dr. Mike Wunder at the University of Colorado, Denver is the lead facilitator of collaborative work between the four institutions.

In 2015 Fritz established the fellowship at the S.J. & Jessie E. Quinney College of Natural Resources at Utah State University prior to his death. Fritz's legacy will live on, as an excellent PhD student named Chris Vennum will commence study in individual heterogeneity in Darwinian fitness of Swainson’s Hawks and its impact on population dynamics. The Quinney College of Natural Resources is proud to honor Fritz’s legacy through a strong collaboration with the other institutions where he established fellowships. Dr. David Koons, Assistant Professor in the Wildland Resources Department at Utah State University will be the faculty advisor for Fritz’s fellowship. The faculty, staff and students in the Quinney College of Natural Resources deeply appreciate Fritz’s vision and trust in USU to mentor world class students and researchers.
Andrew J. Senti Donation Funds
Endowed Chair in Ecosystem Services

A 1950 graduate of the Department of Rangeland Management, Andrew J. Senti, passed away in December of 2015. Andy designated the Quinney College of Natural Resources as the primary beneficiary in his will, providing one of the largest donations ever from an individual to our College. His philanthropy will create an Endowed Chair in the Department of Environment and Society: the Andrew J. Senti Chair in Ecosystem Services. This Endowed Chair will serve as a tribute to Andy’s lifelong career, commitment to science, and his fondness for Utah State University.

Forest and rangelands comprise the vast majority of land cover in Utah. These lands provide ecosystem services by storing carbon, filtering water, and providing wildlife habitat and recreational opportunities for Utahans. The recipient of the Senti Chair will develop a research program which focuses on understanding how these wild lands contribute to and benefit the people of Utah by modeling the dynamics of their use, illustrating their economic value, and analyzing how policies affect them. We are extremely grateful to Andy and the executors of his estate for providing this gift. We will begin the search for this new faculty position in 2017 with enthusiasm and commitment to fulfill Andy’s wishes.

Andy J. Senti worked for the Bureau of Land Management in Colorado for most of his 60 years of federal service. He served as a Land Law Examiner, Appraiser, and Realty Specialist in the BLM Colorado State Office. His breath of knowledge in understanding the history of public land management was unsurpassed. In 1990 he received the Department of Interior’s Distinguished Service Award and in 2009 was awarded the Dept. of Interior Lifetime Achievement Award. Andy was a veteran of World War II receiving the Victory Medal and the Asiatic Pacific Service Medal in 1945. This Endowed Chair will provide a lasting memory to the life and work of Andrew J. Senti.

This Issue’s Contributors:

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Cover photo of Temple Flats in Logan Canyon, taken by Brian Kartchner
Aug 29: Fall Classes Begin

Aug 31: Opening Social

Oct. 18 - 19: Restoring the West
www.restoringthewest.org

Oct 21: Fall Break

For details on these and other upcoming events please visit:
www.qcnr.usu.edu